

Sequence Listing

<110> Baker, Kevin
 Botstein, David
 Eaton, Dan
 Ferrara, Napoleone
 Filvaroff, Ellen
 Gerritsen, Mary
 Goddard, Audrey
 Godowski, Paul
 Grimaldi, Christopher
 Gurney, Austin
 Hillan, Kenneth
 Kljavin, Ivar
 Napier, Mary
 Roy, Margaret
 Tumas, Daniel
 Wood, William

<120> SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
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T.D.E.B.D. "SECRETED"

TECHNICAL

<151> January 5, 1998

<150> 60/074,086
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Pro	Arg	Ser	His	Phe	Phe	Pro	Phe	Asp	Leu	Phe	Pro	Met	Cys	Pro	
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Gly	Leu	Thr	Ser	Val	Pro	Thr	Asn	Ile	Pro	Phe	Asp	Thr	Arg	Met	
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Phe	Lys	Gly	Leu	Thr	Ser	Leu	Tyr	Gly	Leu	Ile	Leu	Asn	Asn	Asn	
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Leu	Arg	Arg	Leu	Tyr	Leu	Ser	His	Asn	Gln	Leu	Ser	Glu	Ile	Pro	
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CS443-0301

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Asn	Ile	Pro	Arg	Val	Arg	Glu	Ile	His	Leu	Glu	Asn	Asn	Lys	Leu
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Lys	Lys	Ile	Pro	Ser	Gly	Leu	Pro	Glu	Leu	Lys	Tyr	Leu	Gln	Ile
				305					310					315
Ile	Phe	Leu	His	Ser	Asn	Ser	Ile	Ala	Arg	Val	Gly	Val	Asn	Asp
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Phe	Cys	Pro	Thr	Val	Pro	Lys	Met	Lys	Lys	Ser	Leu	Tyr	Ser	Ala
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094460 "03001

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<210> 18
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 50 55 60
 Tyr Gly Gln Thr Ser Leu Asp Arg Leu Arg Asp Gly Leu Val Gly
 65 70 75
 Ala Gln Phe Trp Ser Ala Tyr Val Pro Cys Gln Thr Gln Asp Arg
 80 85 90
 Asp Ala Leu Arg Leu Thr Leu Glu Gln Ile Asp Leu Ile Arg Arg
 95 100 105
 Met Cys Ala Ser Tyr Ser Glu Leu Glu Leu Val Thr Ser Ala Lys
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 Ala Leu Asn Asp Thr Gln Lys Leu Ala Cys Leu Ile Gly Val Glu
 125 130 135
 Gly Gly His Ser Leu Asp Asn Ser Leu Ser Ile Leu Arg Thr Phe
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 Tyr Met Leu Gly Val Arg Tyr Leu Thr Leu Thr His Thr Cys Asn
 155 160 165
 Thr Pro Trp Ala Glu Ser Ser Ala Lys Gly Val His Ser Phe Tyr
 170 175 180

Asn Asn Ile Ser Gly Leu Thr Asp Phe Gly Glu Lys Val Val Ala	185	190	195
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Asp Ala Val Ala Arg Arg Ala Leu Glu Val Ser Gln Ala Pro Val	215	220	225
Ile Phe Ser His Ser Ala Ala Arg Gly Val Cys Asn Ser Ala Arg	230	235	240
Asn Val Pro Asp Asp Ile Leu Gln Leu Leu Lys Lys Asn Gly Gly	245	250	255
Val Val Met Val Ser Leu Ser Met Gly Val Ile Gln Cys Asn Pro	260	265	270
Ser Ala Asn Val Ser Thr Val Ala Asp His Phe Asp His Ile Lys	275	280	285
Ala Val Ile Gly Ser Lys Phe Ile Gly Ile Gly Gly Asp Tyr Asp	290	295	300
Gly Ala Gly Lys Phe Pro Gln Gly Leu Glu Asp Val Ser Thr Tyr	305	310	315
Pro Val Leu Ile Glu Glu Leu Leu Ser Arg Gly Trp Ser Glu Glu	320	325	330
Glu Leu Gln Gly Val Leu Arg Gly Asn Leu Leu Arg Val Phe Arg	335	340	345
Gln Val Glu Lys Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu	350	355	360
Glu Asp Lys Phe Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser	365	370	375
Asp Leu Ser Arg Leu Arg Gln Arg Gln Ser Leu Thr Ser Gly Gln	380	385	390
Glu Leu Thr Glu Ile Pro Ile His Trp Thr Ala Lys Leu Pro Ala	395	400	405
Lys Trp Ser Val Ser Glu Ser Ser Pro His Met Ala Pro Val Leu	410	415	420
Ala Val Val Ala Thr Phe Pro Val Leu Ile Leu Trp Leu	425	430	

<210> 25
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 25
agttctggtc agcctatgtg cc 22

<210> 26
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
cgtgatggtg tctttgtcca tggg 24

<210> 27
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 27
ctccaccaat cccgatgaac ttgg 24

<210> 28
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 28
gagcagattg acctcatagc ccgcatgtgt gcctcctatt ctgagctgga 50

<210> 29
<211> 1416
<212> DNA
<213> Homo Sapien

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gatccgcggc cgcgaattct aaaccaacat gccgggcacc tacgctccct 100
cgaccacact cagtagtccc agcaccacagg gcctgcaaga gcaggcacgg 150
gccctgatgc gggacttccc gctcgtggac ggccacaacg acctgcccct 200
ggtcctaagg caggtttacc agaaagggtt acaggatgtt aacctgcgca 250
atttcagcta cggccagacc agcctggaca ggcttagaga tggcctcgtg 300
ggcgcccagt tctggtcagc ctatgtgcca tgccagaccc aggaccggga 350
tgccctgcgc ctcacctgg agcagattga cctcatagc cgcattgtgtg 400

cctcctattc tgagctggag cttgtgacct cggctaaagc tctgaacgac 450
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 caatagcctc tccatcttac gtaccttcta catgctggga gtgcgctacc 550
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 gtgatcttct cccactcggc tgcccgggggt gtgtgcaaca gtgctcggaa 800
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 gcgggtcttc agacaagtgg aaaaggtaca ggaagaaaac aaatggcaaa 1150
 gcccttgga ggacaagtcc ccggatgagc agctgagcag ttcttgccac 1200
 tccgacctct cacgtctgcg tcagagacag agtctgactt caggccagga 1250
 actcactgag attcccatc actggacagc caagttacca gccaagtgg 1300
 cagtctcaga gtcctcccc caccctgaca aaactcacac atgcccaccg 1350
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 aaaaccaag gacacc 1416

<210> 30
 <211> 446
 <212> PRT
 <213> Homo Sapien

<400> 30
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 Thr Gln Gly Leu Gln Glu Gln Ala Arg Ala Leu Met Arg Asp Phe
 20 25 30
 Pro Leu Val Asp Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln
 35 40 45
 Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser

	50		55		60
Tyr Gly Gln Thr	Ser 65	Leu Asp Arg Leu	Arg 70	Asp Gly Leu Val	Gly 75
Ala Gln Phe Trp	Ser 80	Ala Tyr Val Pro	Cys 85	Gln Thr Gln Asp	Arg 90
Asp Ala Leu Arg	Leu 95	Thr Leu Glu Gln	Ile 100	Asp Leu Ile Arg	Arg 105
Met Cys Ala Ser	Tyr 110	Ser Glu Leu Glu	Leu 115	Val Thr Ser Ala	Lys 120
Ala Leu Asn Asp	Thr 125	Gln Lys Leu Ala	Cys 130	Leu Ile Gly Val	Glu 135
Gly Gly His Ser	Leu 140	Asp Asn Ser Leu	Ser 145	Ile Leu Arg Thr	Phe 150
Tyr Met Leu Gly	Val 155	Arg Tyr Leu Thr	Leu 160	Thr His Thr Cys	Asn 165
Thr Pro Trp Ala	Glu 170	Ser Ser Ala Lys	Gly 175	Val His Ser Phe	Tyr 180
Asn Asn Ile Ser	Gly 185	Leu Thr Asp Phe	Gly 190	Glu Lys Val Val	Ala 195
Glu Met Asn Arg	Leu 200	Gly Met Met Val	Asp 205	Leu Ser His Val	Ser 210
Asp Ala Val Ala	Arg 215	Arg Ala Leu Glu	Val 220	Ser Gln Ala Pro	Val 225
Ile Phe Ser His	Ser 230	Ala Ala Arg Gly	Val 235	Cys Asn Ser Ala	Arg 240
Asn Val Pro Asp	Asp 245	Ile Leu Gln Leu	Leu 250	Lys Lys Asn Gly	Gly 255
Val Val Met Val	Ser 260	Leu Ser Met Gly	Val 265	Ile Gln Cys Asn	Pro 270
Ser Ala Asn Val	Ser 275	Thr Val Ala Asp	His 280	Phe Asp His Ile	Lys 285
Ala Val Ile Gly	Ser 290	Lys Phe Ile Gly	Ile 295	Gly Gly Asp Tyr	Asp 300
Gly Ala Gly Lys	Phe 305	Pro Gln Gly Leu	Glu 310	Asp Val Ser Thr	Tyr 315
Pro Val Leu Ile	Glu 320	Glu Leu Leu Ser	Arg 325	Gly Trp Ser Glu	Glu 330
Glu Leu Gln Gly	Val 335	Leu Arg Gly Asn	Leu 340	Leu Arg Val Phe	Arg 345

Gln	Val	Glu	Lys	Val	Gln	Glu	Glu	Asn	Lys	Trp	Gln	Ser	Pro	Leu
				350					355					360
Glu	Asp	Lys	Phe	Pro	Asp	Glu	Gln	Leu	Ser	Ser	Ser	Cys	His	Ser
				365					370					375
Asp	Leu	Ser	Arg	Leu	Arg	Gln	Arg	Gln	Ser	Leu	Thr	Ser	Gly	Gln
				380					385					390
Glu	Leu	Thr	Glu	Ile	Pro	Ile	His	Trp	Thr	Ala	Lys	Leu	Pro	Ala
				395					400					405
Lys	Trp	Ser	Val	Ser	Glu	Ser	Ser	Pro	His	Pro	Asp	Lys	Thr	His
				410					415					420
Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Leu	Leu	Gly	Gly	Pro	Ser
				425					430					435
Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr				
				440					445					

<210> 31
 <211> 1790
 <212> DNA
 <213> Homo Sapien

<400> 31
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 gcgtcccgag ccctgcgcca ccgcgcgcca gccgcagccc gccgcgcgcc 100
 cccggcagcg ccggcccccatt gccgcgcggc cgccgggggccc ccgcgcgcca 150
 atccgcgcgg cgccgcgcgc cgttgctgcc cctgctgctg ctgctctgcg 200
 tcctcggggg gccgcgagcc ggatcaggag cccacacagc tgtgatcagt 250
 ccccaggatc ccacgcttct catcggtccc tccctgctgg ccacctgctc 300
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 tcaacggggc ccgctgccc cctgagctct cccgtgtact caacgcctcc 400
 accttggtc tggccctggc caacctcaat gggccagggc agcggtcggg 450
 ggacaacctc gtgtgccacg cccgtgacgg cagcatcctg gctggctcct 500
 gcctctatgt tggcctgccc ccagagaaac ccgtcaacat cagctgctgg 550
 tccaagaaca tgaaggactt gacctgccgc tggacgccag gggcccacgg 600
 ggagacctc ctccacacca actactccct caagtacaag cttaggtggg 650
 atggccagga caacacatgt gaggagtacc acacagtggg gcccactcc 700
 tgccacatcc ccaaggacct ggctctcttt acgcctatg agatctgggt 750
 ggaggccacc aaccgcctgg gctctgcccc ctccgatgta ctcacgctgg 800

	350		355		360
Gly Pro Val Arg	Arg Glu Leu Lys Gln	Phe Leu Gly Trp Leu Lys			
	365		370		375
Lys His Ala Tyr	Cys Ser Asn Leu Ser	Phe Arg Leu Tyr Asp Gln			
	380		385		390
Trp Arg Ala Trp	Met Gln Lys Ser His	Lys Thr Arg Asn Gln Asp			
	395		400		405
Glu Gly Ile Leu	Pro Ser Gly Arg Arg	Gly Thr Ala Arg Gly Pro			
	410		415		420

Ala Arg

<210> 33
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 33
 cccgcccgcac gtgcacgtga gcc 23

<210> 34
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 34
 tgagccagcc caggaactgc ttg 23

<210> 35
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 35
 caagtgcgct gcaaccctt tggcatctat ggctccaaga aagccgggat 50

<210> 36
 <211> 1771
 <212> DNA
 <213> Homo Sapien

<400> 36
 cccacgcgtc cgctggtgtt agatcgagca accctctaaa agcagtttag 50

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ctccctagag tccttcgtga agctttttat tcctaagagg agaaaatcag 200
tcaccggcga aatcgtgctg attacaggag ctgggcacatg aattgggaga 250
ctgactgcct atgaatttgc taaacttaaa agcaagctgg ttctctggga 300
tataaataag catggactgg aggaaacagc tgccaaatgc aagggaactgg 350
gtgccaaggt tcataccttt gtggtagact gcagcaaccg agaagatatt 400
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cttactgttc aagcaagttt gctgctgttg gatttcataa aactttgaca 700
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tacctttaga ggtgacttta aggaaaatga agaaaaagaa ccaaaatgac 1250
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aaaatttgta ccataaccgt ttatttaaca tatattttta tttttgattg 1350
cacttaaatt ttgtataatt tgtgtttctt tttctgttct acataaaatc 1400
agaaacttca agctctctaa ataaaatgaa ggactatata tagtggtatt 1450
tcacaatgaa tatcatgaac tctcaatggg taggtttcat cctacccatt 1500

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gccactctgt ttctgagag atacctcaca ttccaatgcc aaacatttct 1550
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<210> 37
<211> 300
<212> PRT
<213> Homo Sapien

<400> 37

Met	Lys	Phe	Leu	Leu	Asp	Ile	Leu	Leu	Leu	Leu	Pro	Leu	Leu	Ile	1	5	10	15
Val	Cys	Ser	Leu	Glu	Ser	Phe	Val	Lys	Leu	Phe	Ile	Pro	Lys	Arg	20	25	30	
Arg	Lys	Ser	Val	Thr	Gly	Glu	Ile	Val	Leu	Ile	Thr	Gly	Ala	Gly	35	40	45	
His	Gly	Ile	Gly	Arg	Leu	Thr	Ala	Tyr	Glu	Phe	Ala	Lys	Leu	Lys	50	55	60	
Ser	Lys	Leu	Val	Leu	Trp	Asp	Ile	Asn	Lys	His	Gly	Leu	Glu	Glu	65	70	75	
Thr	Ala	Ala	Lys	Cys	Lys	Gly	Leu	Gly	Ala	Lys	Val	His	Thr	Phe	80	85	90	
Val	Val	Asp	Cys	Ser	Asn	Arg	Glu	Asp	Ile	Tyr	Ser	Ser	Ala	Lys	95	100	105	
Lys	Val	Lys	Ala	Glu	Ile	Gly	Asp	Val	Ser	Ile	Leu	Val	Asn	Asn	110	115	120	
Ala	Gly	Val	Val	Tyr	Thr	Ser	Asp	Leu	Phe	Ala	Thr	Gln	Asp	Pro	125	130	135	
Gln	Ile	Glu	Lys	Thr	Phe	Glu	Val	Asn	Val	Leu	Ala	His	Phe	Trp	140	145	150	
Thr	Thr	Lys	Ala	Phe	Leu	Pro	Ala	Met	Thr	Lys	Asn	Asn	His	Gly	155	160	165	
His	Ile	Val	Thr	Val	Ala	Ser	Ala	Ala	Gly	His	Val	Ser	Val	Pro	170	175	180	
Phe	Leu	Leu	Ala	Tyr	Cys	Ser	Ser	Lys	Phe	Ala	Ala	Val	Gly	Phe	185	190	195	
His	Lys	Thr	Leu	Thr	Asp	Glu	Leu	Ala	Ala	Leu	Gln	Ile	Thr	Gly				

	200		205		210
Val Lys Thr Thr Cys Leu Cys Pro Asn Phe Val Asn Thr Gly Phe	215		220		225
Ile Lys Asn Pro Ser Thr Ser Leu Gly Pro Thr Leu Glu Pro Glu	230		235		240
Glu Val Val Asn Arg Leu Met His Gly Ile Leu Thr Glu Gln Lys	245		250		255
Met Ile Phe Ile Pro Ser Ser Ile Ala Phe Leu Thr Thr Leu Glu	260		265		270
Arg Ile Leu Pro Glu Arg Phe Leu Ala Val Leu Lys Arg Lys Ile	275		280		285
Ser Val Lys Phe Asp Ala Val Ile Gly Tyr Lys Met Lys Ala Gln	290		295		300

<210> 38
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 38
 ggtgaaggca gaaattggag atg 23

<210> 39
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 39
 atcccatgca tcagcctggt tacc 24

<210> 40
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 40
 gctgggtgtag tctatacatc agatttggtt gctacacaag atcctcag 48

<210> 41
 <211> 1377
 <212> DNA
 <213> Homo Sapien

<211> 243
 <212> PRT
 <213> Homo Sapien

<400> 42

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Ser	Pro	Pro	Leu	Asp	Asp	Asn	Lys	Ile	Pro	Ser	Leu	Cys	Pro	Gly
				20					25					30
His	Pro	Gly	Leu	Pro	Gly	Thr	Pro	Gly	His	His	Gly	Ser	Gln	Gly
				35					40					45
Leu	Pro	Gly	Arg	Asp	Gly	Arg	Asp	Gly	Arg	Asp	Gly	Ala	Pro	Gly
				50					55					60
Ala	Pro	Gly	Glu	Lys	Gly	Glu	Gly	Gly	Arg	Pro	Gly	Leu	Pro	Gly
				65					70					75
Pro	Arg	Gly	Asp	Pro	Gly	Pro	Arg	Gly	Glu	Ala	Gly	Pro	Ala	Gly
				80					85					90
Pro	Thr	Gly	Pro	Ala	Gly	Glu	Cys	Ser	Val	Pro	Pro	Arg	Ser	Ala
				95					100					105
Phe	Ser	Ala	Lys	Arg	Ser	Glu	Ser	Arg	Val	Pro	Pro	Pro	Ser	Asp
				110					115					120
Ala	Pro	Leu	Pro	Phe	Asp	Arg	Val	Leu	Val	Asn	Glu	Gln	Gly	His
				125					130					135
Tyr	Asp	Ala	Val	Thr	Gly	Lys	Phe	Thr	Cys	Gln	Val	Pro	Gly	Val
				140					145					150
Tyr	Tyr	Phe	Ala	Val	His	Ala	Thr	Val	Tyr	Arg	Ala	Ser	Leu	Gln
				155					160					165
Phe	Asp	Leu	Val	Lys	Asn	Gly	Glu	Ser	Ile	Ala	Ser	Phe	Phe	Gln
				170					175					180
Phe	Phe	Gly	Gly	Trp	Pro	Lys	Pro	Ala	Ser	Leu	Ser	Gly	Gly	Ala
				185					190					195
Met	Val	Arg	Leu	Glu	Pro	Glu	Asp	Gln	Val	Trp	Val	Gln	Val	Gly
				200					205					210
Val	Gly	Asp	Tyr	Ile	Gly	Ile	Tyr	Ala	Ser	Ile	Lys	Thr	Asp	Ser
				215					220					225
Thr	Phe	Ser	Gly	Phe	Leu	Val	Tyr	Ser	Asp	Trp	His	Ser	Ser	Pro
				230					235					240

Val Phe Ala

<210> 43
 <211> 24

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 43
 tacaggccca gtcaggacca gggg 24

 <210> 44
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 44
 agccagcctc gctctcgg 18

 <210> 45
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 45
 gtctgcgatc aggtctgg 18

 <210> 46
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 46
 gaaagaggca atggattcgc 20

 <210> 47
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 47
 gacttacact tgccagcaca gcac 24

 <210> 48
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 48

ggagcaccac caactggagg gtccggagta gcgagcgccc cgaag 45

<210> 49

<211> 1876

<212> DNA

<213> Homo Sapien

<400> 49

ctcttttgtc caccagccca gcctgactcc tggagattgt gaatagctcc 50
atccagcctg agaaacaagc cgggtggctg agccaggctg tgcacggagc 100
acctgacggg cccaacagac ccatgctgca tccagagacc tcccctggcc 150
gggggcatct cctggctgtg ctectggccc tccttggcac cacctgggca 200
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caaggtgcat ttcccttcc acacctgtga cctgaggatc gacggagact 1050
gcttcattgg gtcttcagag gcagacacct attacagagc caggatgaaa 1100
tgtcagagga aaggcggggg gctggcccag atcaagagcc agaaagtgc 1150

Val Glu Val Val	110	Glu Gly Gln Arg Tyr Ser	115	120
Ser Leu Trp Phe Ala	125	Glu Gly Gln Arg Tyr Ser	130	135
His Ala Ala Gly	140	Ala Thr Cys Thr His Tyr	145	150
Glu Cys Ala Arg Asn	140	Ala Thr Cys Thr His Tyr	145	150
Thr Gln Leu Val	155	Gln Leu Gly Cys Gly Arg	160	165
Trp Ala Thr Ser Ser	155	Gln Leu Gly Cys Gly Arg	160	165
His Leu Cys Ser	170	Ile Glu Ala Phe Val Cys	175	180
Ala Gly Gln Thr Ala	170	Ile Glu Ala Phe Val Cys	175	180
Ala Tyr Ser Pro	185	Val Asn Gly Lys Thr Ile	190	195
Gly Gly Asn Trp Glu	185	Val Asn Gly Lys Thr Ile	190	195
Ile Pro Tyr Lys	200	Ser Leu Cys Thr Ala Ser	205	210
Lys Gly Ala Trp Cys	200	Ser Leu Cys Thr Ala Ser	205	210
Val Ser Gly Cys	215	His Ala Gly Gly Leu Cys	220	225
Phe Lys Ala Trp Asp	215	His Ala Gly Gly Leu Cys	220	225
Glu Val Pro Arg	230	Ser Cys Gln Asn His Gly	235	240
Asn Pro Cys Arg Met	230	Ser Cys Gln Asn His Gly	235	240
Arg Leu Asn Ile	245	His Cys Pro Pro Gly Tyr	250	255
Ser Thr Cys His Cys	245	His Cys Pro Pro Gly Tyr	250	255
Thr Gly Arg Tyr	260	Ser Leu Gln Cys Val His	265	270
Cys Gln Val Arg Cys	260	Ser Leu Gln Cys Val His	265	270
Gly Arg Phe Arg	275	Cys Val Cys Asp Ile Gly	280	285
Glu Glu Glu Cys Ser	275	Cys Val Cys Asp Ile Gly	280	285
Tyr Gly Gly Ala	290	Val His Phe Pro Phe His	295	300
Gln Cys Ala Thr Lys	290	Val His Phe Pro Phe His	295	300
Thr Cys Asp Leu	305	Cys Phe Met Val Ser Ser	310	315
Arg Ile Asp Gly Asp	305	Cys Phe Met Val Ser Ser	310	315
Glu Ala Asp Thr	320	Met Lys Cys Gln Arg Lys	325	330
Tyr Tyr Arg Ala Arg	320	Met Lys Cys Gln Arg Lys	325	330
Gly Gly Val Leu	335	Gln Lys Val Gln Asp Ile	340	345
Ala Gln Ile Lys Ser	335	Gln Lys Val Gln Asp Ile	340	345
Leu Ala Phe Tyr	350	Thr Thr Asn Glu Val Thr	355	360
Leu Gly Arg Leu Glu	350	Thr Thr Asn Glu Val Thr	355	360
Asp Ser Asp Phe	365	Trp Ile Gly Leu Thr Tyr	370	375
Glu Thr Arg Asn Phe	365	Trp Ile Gly Leu Thr Tyr	370	375
Lys Thr Ala Lys	380	Ala Thr Gly Glu His Gln	385	390
Asp Ser Phe Arg Trp	380	Ala Thr Gly Glu His Gln	385	390
Ala Phe Thr Ser	395	Pro Asp Asn His Gly Leu	400	405
Phe Ala Phe Gly Gln	395	Pro Asp Asn His Gly Leu	400	405

Val Trp Leu Ser Ala Ala Met Gly Phe Gly Asn Cys Val Glu Leu
410 415 420

Gln Ala Ser Ala Ala Phe Asn Trp Asn Asp Gln Arg Cys Lys Thr
425 430 435

Arg Asn Arg Tyr Ile Cys Gln Phe Ala Gln Glu His Ile Ser Arg
440 445 450

Trp Gly Pro Gly Ser
455

<210> 51
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 51
aggaacttct ggatcgggct cacc 24

<210> 52
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 52
gggtctgggc caggtggaag agag 24

<210> 53
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 53
gccaaaggact ccttccgctg ggccacaggg gagcaccagg ccttc 45

<210> 54
<211> 2331
<212> DNA
<213> Homo Sapien

<400> 54
cggacgcgtg ggctgggccc tgcaaagcgt gtcccgcggg gtccccgagc 50
gtcccgcgcc ctgccccgc catgctcctg ctgctggggc tgtgcctggg 100
gctgtccctg tgtgtggggg cgcaggaaga ggcgcagagc tggggccact 150
cttcggagca ggatggactc aggggtcccga ggcaagtcag actgttgcag 200

410	415	420
Asn Asn Thr Arg Glu Ala Ala Arg Gly	Gln Val Cys Ile Phe Thr	
425	430	435
Ile Gly Ile Gly Asn Asp Val Asp Phe	Arg Leu Leu Glu Lys Leu	
440	445	450
Ser Leu Glu Asn Cys Gly Leu Thr Arg	Arg Val His Glu Glu Glu	
455	460	465
Asp Ala Gly Ser Gln Leu Ile Gly Phe	Tyr Asp Glu Ile Arg Thr	
470	475	480
Pro Leu Leu Ser Asp Ile Arg Ile Asp	Tyr Pro Pro Ser Ser Val	
485	490	495
Val Gln Ala Thr Lys Thr Leu Phe Pro	Asn Tyr Phe Asn Gly Ser	
500	505	510
Glu Ile Ile Ile Ala Gly Lys Leu Val	Asp Arg Lys Leu Asp His	
515	520	525
Leu His Val Glu Val Thr Ala Ser Asn	Ser Lys Lys Phe Ile Ile	
530	535	540
Leu Lys Thr Asp Val Pro Val Arg Pro	Gln Lys Ala Gly Lys Asp	
545	550	555
Val Thr Gly Ser Pro Arg Pro Gly Gly	Asp Gly Glu Gly Asp Thr	
560	565	570
Asn His Ile Glu Arg Leu Trp Ser Tyr	Leu Thr Thr Lys Glu Leu	
575	580	585
Leu Ser Ser Trp Leu Gln Ser Asp Asp	Glu Pro Glu Lys Glu Arg	
590	595	600
Leu Arg Gln Arg Ala Gln Ala Leu Ala	Val Ser Tyr Arg Phe Leu	
605	610	615
Thr Pro Phe Thr Ser Met Lys Leu Arg	Gly Pro Val Pro Arg Met	
620	625	630
Asp Gly Leu Glu Glu Ala His Gly Met	Ser Ala Ala Met Gly Pro	
635	640	645
Glu Pro Val Val Gln Ser Val Arg Gly	Ala Gly Thr Gln Pro Gly	
650	655	660
Pro Leu Leu Lys Lys Pro Asn Ser Val	Lys Lys Lys Gln Asn Lys	
665	670	675
Thr Lys Lys Arg His Gly Arg Asp Gly	Val Phe Pro Leu His His	
680	685	690
Leu Gly Ile Arg		

<210> 56
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 56
gtgggaacca aactccggca gacc 24

<210> 57
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 57
cacatcgagc gtctctgg 18

<210> 58
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 58
agccgctcct tctccgggtc atcg 24

<210> 59
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 59
tggaaggacc acttgatatc agtcactcca gacagcatca gggatggg 48

<210> 60
<211> 1413
<212> DNA
<213> Homo Sapien

<400> 60
cggacgcgtg ggggtgcccga catggcgagt gtagtgctgc cgagcggatc 50
ccagtgtgcg gcggcagcgg cggcggcggc gcctcccggg ctccggcttc 100
tgctgttgct cttctccgcc gcggcactga tccccacagg tgatgggcag 150
aatctgttta cgaaagacgt gacagtgatc gagggagagg ttgcgaccat 200

Ala	Ala	Ala	Ala	Ala	Pro	Pro	Gly	Leu	Arg	Leu	Leu	Leu	Leu	Leu	
				20					25					30	
Phe	Ser	Ala	Ala	Ala	Leu	Ile	Pro	Thr	Gly	Asp	Gly	Gln	Asn	Leu	
				35					40					45	
Phe	Thr	Lys	Asp	Val	Thr	Val	Ile	Glu	Gly	Glu	Val	Ala	Thr	Ile	
				50					55					60	
Ser	Cys	Gln	Val	Asn	Lys	Ser	Asp	Asp	Ser	Val	Ile	Gln	Leu	Leu	
				65					70					75	
Asn	Pro	Asn	Arg	Gln	Thr	Ile	Tyr	Phe	Arg	Asp	Phe	Arg	Pro	Leu	
				80					85					90	
Lys	Asp	Ser	Arg	Phe	Gln	Leu	Leu	Asn	Phe	Ser	Ser	Ser	Glu	Leu	
				95					100					105	
Lys	Val	Ser	Leu	Thr	Asn	Val	Ser	Ile	Ser	Asp	Glu	Gly	Arg	Tyr	
				110					115					120	
Phe	Cys	Gln	Leu	Tyr	Thr	Asp	Pro	Pro	Gln	Glu	Ser	Tyr	Thr	Thr	
				125					130					135	
Ile	Thr	Val	Leu	Val	Pro	Pro	Arg	Asn	Leu	Met	Ile	Asp	Ile	Gln	
				140					145					150	
Lys	Asp	Thr	Ala	Val	Glu	Gly	Glu	Glu	Ile	Glu	Val	Asn	Cys	Thr	
				155					160					165	
Ala	Met	Ala	Ser	Lys	Pro	Ala	Thr	Thr	Ile	Arg	Trp	Phe	Lys	Gly	
				170					175					180	
Asn	Thr	Glu	Leu	Lys	Gly	Lys	Ser	Glu	Val	Glu	Glu	Trp	Ser	Asp	
				185					190					195	
Met	Tyr	Thr	Val	Thr	Ser	Gln	Leu	Met	Leu	Lys	Val	His	Lys	Glu	
				200					205					210	
Asp	Asp	Gly	Val	Pro	Val	Ile	Cys	Gln	Val	Glu	His	Pro	Ala	Val	
				215					220					225	
Thr	Gly	Asn	Leu	Gln	Thr	Gln	Arg	Tyr	Leu	Glu	Val	Gln	Tyr	Lys	
				230					235					240	
Pro	Gln	Val	His	Ile	Gln	Met	Thr	Tyr	Pro	Leu	Gln	Gly	Leu	Thr	
				245					250					255	
Arg	Glu	Gly	Asp	Ala	Leu	Glu	Leu	Thr	Cys	Glu	Ala	Ile	Gly	Lys	
				260					265					270	
Pro	Gln	Pro	Val	Met	Val	Thr	Trp	Val	Arg	Val	Asp	Asp	Glu	Met	
				275					280					285	
Pro	Gln	His	Ala	Val	Leu	Ser	Gly	Pro	Asn	Leu	Phe	Ile	Asn	Asn	
				290					295					300	
Leu	Asn	Lys	Thr	Asp	Asn	Gly	Thr	Tyr	Arg	Cys	Glu	Ala	Ser	Asn	

305	310	315
Ile Val Gly Lys Ala His Ser Asp Tyr	Met Leu Tyr Val Tyr Asp	
320	325	330
Pro Pro Thr Thr Ile Pro Pro Pro Thr	Thr Thr Thr Thr Thr Thr	
335	340	345
Thr Thr Thr Thr Thr Thr Ile Leu Thr	Ile Ile Thr Asp Ser Arg	
350	355	360
Ala Gly Glu Glu Gly Ser Ile Arg Ala	Val Asp His Ala Val Ile	
365	370	375
Gly Gly Val Val Ala Val Val Val Phe	Ala Met Leu Cys Leu Leu	
380	385	390
Ile Ile Leu Gly Arg Tyr Phe Ala Arg	His Lys Gly Thr Tyr Phe	
395	400	405
Thr His Glu Ala Lys Gly Ala Asp Asp	Ala Ala Asp Ala Asp Thr	
410	415	420
Ala Ile Ile Asn Ala Glu Gly Gly Gln	Asn Asn Ser Glu Glu Lys	
425	430	435
Lys Glu Tyr Phe Ile		
440		

- <210> 62
- <211> 24
- <212> DNA
- <213> Artificial Sequence

- <220>
- <223> Synthetic oligonucleotide probe

- <400> 62
- ggcttctgct gttgctcttc tccg 24

- <210> 63
- <211> 20
- <212> DNA
- <213> Artificial Sequence

- <220>
- <223> Synthetic oligonucleotide probe

- <400> 63
- gtacactgtg accagtcagc 20

- <210> 64
- <211> 20
- <212> DNA
- <213> Artificial Sequence

- <220>
- <223> Synthetic oligonucleotide probe

<400> 64
atcatcacag attcccagc 20

<210> 65
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 65
ttcaatctcc tcaccttcca ccgc 24

<210> 66
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 66
atagctgtgt ctgcgtctgc tgcg 24

<210> 67
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 67
cgcggcactg atccccacag gtgatgggca gaatctgttt acgaaagacg 50

<210> 68
<211> 2555
<212> DNA
<213> Homo Sapien

<400> 68
ggggcggggtg gacgcggact cgaacgcagt tgcttcggga cccaggaccc 50
cctcggggccc gacccgccag gaaagactga ggccgcggcc tgccccgccc 100
ggctccctgc gccgccgccg cctcccggga cagaagatgt gctccagggt 150
ccctctgctg ctgccgctgc tcctgctact ggccctgggg cctgggggtgc 200
agggtgccc atccggctgc cagtgcagcc agccacagac agtcttctgc 250
actgcccgcc aggggaccac ggtgccccga gacgtgccac ccgacacggt 300
ggggctgtac gtctttgaga acggcatcac catgctcgac gcaagcagct 350
ttgccggcct gccgggcctg cagctcctgg acctgtcaca gaaccagatc 400

gccagcctgc gcctgccccg cctgctgctg ctggacctca gccacaacag 450
cctcctggcc ctggagcccc gcatactgga cactgccaac gtggaggcgc 500
tgcggtggc tggctctggg ctgcagcagc tggacgaggg gctcttcagc 550
cgcttgcgca acctccacga cctggatgtg tccgacaacc agctggagcg 600
agtgccacct gtgatccgag gcctccgggg cctgacgcgc ctgcggtgg 650
ccggcaacac ccgcattgcc cagctgcggc ccgaggacct ggccggcctg 700
gctgccctgc aggagctgga tgtgagcaac ctaagcctgc aggccctgcc 750
tggcgacctc tcgggcctct tccccgcct gcggtgctg gcagctgcc 800
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caccgactgt agggcctgtc cccagcccc aggactgcc accgtccacc 1150
tgctcaatg ggggcacatg ccacctgggg acacggcacc acctggcgtg 1200
cttgtgcccc gaaggcttca cgggcctgta ctgtgagagc cagatggggc 1250
aggggacacg gccagccct acaccagtca cgccgaggcc accacggtec 1300
ctgaccctgg gcatacgagc ggtgagcccc acctccctgc gcgtggggct 1350
gcagcgctac ctccagggga gctccgtgca gctcaggagc ctccgtctca 1400
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gccccagtca ccagggccc cgagggaac ctgccgctcc tcattgcgcc 1650
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cttgagacca ggcccgaagg caacagaggg cggtagagag gccctgcca 1850

gcgggtctga gtgtgaggtg ccactcatgg gcttcccagg gcctggcctc 1900
 cagtcacccc tccacgcaaa gccctacatc taagccagag agagacaggg 1950
 cagctggggc cgggctctca gccagtgaga tggccagccc cctcctgctg 2000
 ccacaccacg taagttctca gtcccaacct cggggatgtg tgcagacagg 2050
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 tctgtgagat gctgtggccc agctgacgag ccctaacgtc cccagaaccg 2150
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 gggcacggcg ggccttgcca tgtgctggta acgcatgcct gggccctgct 2250
 gggctctccc actccaggcg gaccctgggg gccagtgaag gaagctcccg 2300
 gaaagagcag agggagagcg ggtaggcggc tgtgtgactc tagtcttggc 2350
 cccaggaagc gaaggaacaa aagaaactgg aaaggaagat gctttaggaa 2400
 catgttttgc ttttttaaaa tatatatata tttataagag atcctttccc 2450
 atttattctg ggaagatgtt tttcaaactc agagacaagg actttggttt 2500
 ttgtaagaca aacgatgata tgaaggcctt ttgtaagaaa aaataaaaaa 2550
 aaaaa 2555

<210> 69
 <211> 598
 <212> PRT
 <213> Homo Sapien

<400> 69
 Met Cys Ser Arg Val Pro Leu Leu Leu Pro Leu Leu Leu Leu Leu
 1 5 10 15
 Ala Leu Gly Pro Gly Val Gln Gly Cys Pro Ser Gly Cys Gln Cys
 20 25 30
 Ser Gln Pro Gln Thr Val Phe Cys Thr Ala Arg Gln Gly Thr Thr
 35 40 45
 Val Pro Arg Asp Val Pro Pro Asp Thr Val Gly Leu Tyr Val Phe
 50 55 60
 Glu Asn Gly Ile Thr Met Leu Asp Ala Ser Ser Phe Ala Gly Leu
 65 70 75
 Pro Gly Leu Gln Leu Leu Asp Leu Ser Gln Asn Gln Ile Ala Ser
 80 85 90
 Leu Arg Leu Pro Arg Leu Leu Leu Leu Asp Leu Ser His Asn Ser
 95 100 105
 Leu Leu Ala Leu Glu Pro Gly Ile Leu Asp Thr Ala Asn Val Glu

110	115	120
Ala Leu Arg Leu	Ala Gly Leu Gly Leu	Gln Gln Leu Asp Glu Gly
125	130	135
Leu Phe Ser Arg	Leu Arg Asn Leu His	Asp Leu Asp Val Ser Asp
140	145	150
Asn Gln Leu Glu	Arg Val Pro Pro Val	Ile Arg Gly Leu Arg Gly
155	160	165
Leu Thr Arg Leu	Arg Leu Ala Gly Asn	Thr Arg Ile Ala Gln Leu
170	175	180
Arg Pro Glu Asp	Leu Ala Gly Leu Ala	Ala Leu Gln Glu Leu Asp
185	190	195
Val Ser Asn Leu	Ser Leu Gln Ala Leu	Pro Gly Asp Leu Ser Gly
200	205	210
Leu Phe Pro Arg	Leu Arg Leu Leu Ala	Ala Ala Arg Asn Pro Phe
215	220	225
Asn Cys Val Cys	Pro Leu Ser Trp Phe	Gly Pro Trp Val Arg Glu
230	235	240
Ser His Val Thr	Leu Ala Ser Pro Glu	Glu Thr Arg Cys His Phe
245	250	255
Pro Pro Lys Asn	Ala Gly Arg Leu Leu	Leu Glu Leu Asp Tyr Ala
260	265	270
Asp Phe Gly Cys	Pro Ala Thr Thr Thr	Thr Ala Thr Val Pro Thr
275	280	285
Thr Arg Pro Val	Val Arg Glu Pro Thr	Ala Leu Ser Ser Ser Leu
290	295	300
Ala Pro Thr Trp	Leu Ser Pro Thr Ala	Pro Ala Thr Glu Ala Pro
305	310	315
Ser Pro Pro Ser	Thr Ala Pro Pro Thr	Val Gly Pro Val Pro Gln
320	325	330
Pro Gln Asp Cys	Pro Pro Ser Thr Cys	Leu Asn Gly Gly Thr Cys
335	340	345
His Leu Gly Thr	Arg His His Leu Ala	Cys Leu Cys Pro Glu Gly
350	355	360
Phe Thr Gly Leu	Tyr Cys Glu Ser Gln	Met Gly Gln Gly Thr Arg
365	370	375
Pro Ser Pro Thr	Pro Val Thr Pro Arg	Pro Pro Arg Ser Leu Thr
380	385	390
Leu Gly Ile Glu	Pro Val Ser Pro Thr	Ser Leu Arg Val Gly Leu
395	400	405

Gln Arg Tyr Leu	Gln Gly Ser Ser Val	Gln Leu Arg Ser Leu Arg	
410		415	420
Leu Thr Tyr Arg	Asn Leu Ser Gly Pro	Asp Lys Arg Leu Val Thr	
425		430	435
Leu Arg Leu Pro	Ala Ser Leu Ala Glu	Tyr Thr Val Thr Gln Leu	
440		445	450
Arg Pro Asn Ala	Thr Tyr Ser Val Cys	Val Met Pro Leu Gly Pro	
455		460	465
Gly Arg Val Pro	Glu Gly Glu Glu Ala	Cys Gly Glu Ala His Thr	
470		475	480
Pro Pro Ala Val	His Ser Asn His Ala	Pro Val Thr Gln Ala Arg	
485		490	495
Glu Gly Asn Leu	Pro Leu Leu Ile Ala	Pro Ala Leu Ala Ala Val	
500		505	510
Leu Leu Ala Ala	Leu Ala Ala Val Gly	Ala Ala Tyr Cys Val Arg	
515		520	525
Arg Gly Arg Ala	Met Ala Ala Ala Ala	Gln Asp Lys Gly Gln Val	
530		535	540
Gly Pro Gly Ala	Gly Pro Leu Glu Leu	Glu Gly Val Lys Val Pro	
545		550	555
Leu Glu Pro Gly	Pro Lys Ala Thr Glu	Gly Gly Gly Glu Ala Leu	
560		565	570
Pro Ser Gly Ser	Glu Cys Glu Val Pro	Leu Met Gly Phe Pro Gly	
575		580	585
Pro Gly Leu Gln	Ser Pro Leu His Ala	Lys Pro Tyr Ile	
590		595	

<210> 70
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 70
 ccctccactg cccaccgac tg 22

 <210> 71
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

<400> 71
 cggttctggg gacgttaggg ctcg 24

<210> 72
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 72
 ctgcccacg tccacctgcc tcaat 25

<210> 73
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 73
 aggactgcc accgtccacc tgectcaatg ggggcacatg ccacc 45

<210> 74
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 74
 acgcaaagcc ctacatctaa gccagagaga gacagggcag ctggg 45

<210> 75
 <211> 1077
 <212> DNA
 <213> Homo Sapien

<400> 75
 ggcactagga caaccttctt cccttctgca ccactgcccg tacccttacc 50
 cgccccgcca cctccttgct accccactct tgaaaccaca gctgttgcca 100
 ggggtccccag ctcatgccag cctcatctcc tttcttgcta gcccccaaag 150
 ggcctccagg caacatgggg ggcccagtc gagagccggc actctcagtt 200
 gccctctggt tgagttgggg ggcagctctg ggggccgtgg cttgtgccat 250
 ggctctgctg acccaacaaa cagagctgca gagcctcagg agagaggtga 300
 gccggctgca ggggacagga ggccccctcc agaatgggga agggatatccc 350
 tggcagagtc tcccggagca gagttccgat gccctggaag cctgggagaa 400

<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 81
cccgggtgctt gcgctgctgt gaccccggtg cctccatgta cccgg 45

<210> 82
<211> 2284
<212> DNA
<213> Homo Sapien

<400> 82
gcggagcatc cgctgcggtc ctgcgcgaga ccccgcgcg gattcgccgg 50
tccttcccgc gggcgcgaca gagctgtcct cgcacctgga tggcagcagg 100
ggcgccgggg tcctctcgac gccagagaga aatctcatca tctgtgcagc 150
cttcttaaag caaactaaga ccagagggag gattatcctt gacctttgaa 200
gacaaaact aaactgaaat ttaaaatggt cttcggggga gaaggagct 250
tgacttacac tttggtaata atttgcttcc tgacactaag gctgtctgct 300
agtcagaatt gcctcaaaaa gagtctagaa gatgttgtca ttgacatcca 350
gtcatctctt tctaaggga tcaagaggcaa tgagcccgta tatacttcaa 400
ctcaagaaga ctgcattaat tcttgctggt caacaaaaaa catatcaggg 450
gacaaagcat gtaacttgat gatcttcgac actcgaaaaa cagctagaca 500
acccaactgc tacctatctt tctgtcccaa cgaggaagcc tgtccattga 550
aaccagcaaa aggacttatg agttacagga taattacaga ttttccatct 600
ttgaccagaa atttgccaag ccaagagtta cccaggaag attctctctt 650
acatggccaa ttttcacaag cagtcactcc cctagcccat catcacacag 700
attattcaaa gccaccgat atctcatgga gagacacact ttctcagaag 750
tttgatcct cagatcacct ggagaaacta tttaagatgg atgaagcaag 800
tgcccagctc cttgcttata aggaaaaagg ccattctcag agttcacaat 850
tttctctga tcaagaaata gctcatctgc tgccctgaaa tgtgagtgcg 900
ctcccagcta cggtggcagt tgcttctcca cataccacct cggtactcc 950
aaagcccgcc acccttctac ccaccaatgc ttcagtgaac ccttctggga 1000
cttcccagcc acagctggcc accacagctc cacctgtaac cactgtcact 1050

<210> 87
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 87
caccgtagct gggagcgcac tcac 24

<210> 88
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 88
agtgttaagtc aagctccc 18

<210> 89
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 89
gcttcctgac actaaggctg tctgctagtc agaattgcct caaaaagag 49

<210> 90
<211> 957
<212> DNA
<213> Homo Sapien

<400> 90
cctggaagat gcgcccattg gctgggtggcc tgctcaaggt ggtgttcgtg 50
gtcttcgcct ccttgtgtgc ctggtattcg gggtagctgc tcgcagagct 100
cattccagat gcacccctgt ccagtgtgc ctatagcatc cgcagcatcg 150
gggagaggcc tgctctcaaa gctccagtcc ccaaaaggca aaaatgtgac 200
cactggactc cctgcccatac tgacacctat gcctacaggt tactcagcgg 250
aggtggcaga agcaagtacg ccaaaatctg ctttgaggat aacctactta 300
tgggagaaca gctgggaaat gttgccagag gaataaacat tgccattgtc 350
aactatgtaa ctgggaatgt gacagcaaca cgatgttttg atatgtatga 400
aggcgataac tctggaccga tgacaaagtt tattcagagt gctgctccaa 450
aatccctgct cttcatgggtg acctatgacg acggaagcac aagactgaat 500

aacgatgcc aagaatgccat agaagcactt ggaagtaaag aaatcaggaa 550
 catgaaattc aggtctagct gggatatttat tgcagcaaaa ggcttggaac 600
 tcccttccga aattcagaga gaaaagatca accactctga tgctaagaac 650
 aacagatatt ctggctggcc tgcagagatc cagatagaag gctgcatacc 700
 caaagaacga agctgacact gcagggtcct gagtaaagt gttctgtata 750
 aacaaatgca gctggaatcg ctcaagaatc ttatttttct aaatccaaca 800
 gcccatattt gatgagtatt ttgggtttgt tgtaaacc aa tgaacatttg 850
 ctagttgtat caaatcttgg tacgcagtat ttttatacca gtattttatg 900
 tagtgaagat gtcaattagc aggaaactaa aatgaatgga aattcttaaa 950
 aaaaaaa 957

<210> 91
 <211> 235
 <212> PRT
 <213> Homo Sapien

<400> 91
 Met Arg Pro Leu Ala Gly Gly Leu Leu Lys Val Val Phe Val Val
 1 5 10 15
 Phe Ala Ser Leu Cys Ala Trp Tyr Ser Gly Tyr Leu Leu Ala Glu
 20 25 30
 Leu Ile Pro Asp Ala Pro Leu Ser Ser Ala Ala Tyr Ser Ile Arg
 35 40 45
 Ser Ile Gly Glu Arg Pro Val Leu Lys Ala Pro Val Pro Lys Arg
 50 55 60
 Gln Lys Cys Asp His Trp Thr Pro Cys Pro Ser Asp Thr Tyr Ala
 65 70 75
 Tyr Arg Leu Leu Ser Gly Gly Gly Arg Ser Lys Tyr Ala Lys Ile
 80 85 90
 Cys Phe Glu Asp Asn Leu Leu Met Gly Glu Gln Leu Gly Asn Val
 95 100 105
 Ala Arg Gly Ile Asn Ile Ala Ile Val Asn Tyr Val Thr Gly Asn
 110 115 120
 Val Thr Ala Thr Arg Cys Phe Asp Met Tyr Glu Gly Asp Asn Ser
 125 130 135
 Gly Pro Met Thr Lys Phe Ile Gln Ser Ala Ala Pro Lys Ser Leu
 140 145 150
 Leu Phe Met Val Thr Tyr Asp Asp Gly Ser Thr Arg Leu Asn Asn
 155 160 165

Asp Ala Lys Asn Ala Ile Glu Ala Leu Gly Ser Lys Glu Ile Arg
170 175 180

Asn Met Lys Phe Arg Ser Ser Trp Val Phe Ile Ala Ala Lys Gly
185 190 195

Leu Glu Leu Pro Ser Glu Ile Gln Arg Glu Lys Ile Asn His Ser
200 205 210

Asp Ala Lys Asn Asn Arg Tyr Ser Gly Trp Pro Ala Glu Ile Gln
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